

REMARKS

INTRODUCTION

In accordance with the foregoing, claims 1, 8, 10, 11, 16-18, 28 and 29 have been amended. Claims 1-31 are pending and under consideration.

GROUND FOR ENTRY OF THIS RESPONSE PURSUANT TO 37 CFR 1.116

The Applicants respectfully request entry of this Rule 116 Response because it is believed that the amendments and arguments put forward place these claims in condition for allowance. These amendments and arguments were not earlier presented because the final Office Action contained new grounds of rejection, including in particular newly-cited prior art applied in the new grounds of rejection. It is therefore respectfully requested that the Applicants have the present amendments and arguments entered and considered, which are believed to overcome the newly-cited prior art.

CLAIM REJECTIONS

Claims 1-5, 7 and 28-31 were rejected under 35 USC 102(e) as being anticipated by newly-cited Ghabra et al. (US 6,838,985) (hereinafter "Ghabra").

Claims 6 and 16-31 were rejected under 35 USC 103(a) as being unpatentable over newly-cited Ghabra.

Claims 8-13 and 15 were rejected under 35 USC 102(b) as being anticipated by Yasushi (JP 10-019710) (hereinafter "Yasushi").

Claim 14 was rejected under 35 USC 102(b) as being unpatentable over Yasushi.

Claims 1-7

Amended claim 1 recites: "...only one electric power transmitter is provided for commonly transmitting the electric operating power wirelessly to the plural electric power receivers."

The Office Action relies on Ghabra to show these features of claim 1 and specifically relies on the section of Ghabra which discusses a controller that activates each initiator in order to generate a low frequency electromagnetic field for use in recharging the battery in the associated tire pressure monitor. See Ghabra, 3:16-3:19.

It is respectfully submitted that Ghabra is silent about the electric power transmitter for transmitting the electric operating power wirelessly as recited in claim 1. The Examiner appears to consider that an initiator 34 of Ghabra corresponds to the electric power transmitter of claim 1.

However, the initiator 34 of Ghabra is used to generate a transmitter initiation signal for causing the transmitter to transmit a tire pressure signal as well as to generate a low frequency electromagnetic field for use in recharging a battery 24, which electric power transmitter of claim 1 is used for transmitting the electric operating power wirelessly to electric power receivers. In addition, the system of Ghabra is provided with four initiators 34 for each of the tire monitors 16, while in claim 1, only one electric power transmitter is provided for the plural electric power receivers. Accordingly, an advantage of the present invention as recited in claim 1 is provided by the reduction in cost and maintenance as a result of elimination of the use of any battery. This in turn provides for a balanced wheel rotation resulting from the reduction in weight and operation of the sensor even at an extremely low speed rotation of the wheel, which cannot be obtained from Ghabra.

In further detail, the initiator discussed in Ghabra that generates a low frequency electromagnetic field for use in recharging a battery does not anticipate the technical feature of claim 1 of an electric power transmitter to transmit the electric operating power wirelessly to the electric power receiver.

Referring to Figure 1 of Ghabra, each tire monitor 16 includes a battery 24 in communication with and for providing power to an associated transmitter 20. In response to the receipt by receiver 26 of a low battery power status signal, controller 28 may activate the associated initiator 34 to generate a low frequency electromagnetic field for use in recharging the battery 24. Accordingly, Ghabra notes that this eliminates or substantially reduces the need to replace batteries 24 in tire pressure monitors 16. See Ghabra, 7:58-8:8 and Figure 1.

Specifically, each tire monitor 16 includes a **battery 24 for providing power to an associated transmitter 20**. Claim 1 clearly recites that an electric power transmitter transmits **electric operating power** wirelessly to the electric power receiver. Accordingly, no battery is needed in the present invention, a technical advantage not realized in Ghabra. This technical feature of claim 1 provides that battery replacement is eliminated (rather than just being reduced as in Ghabra). Further environmental contamination resulting from disposal of the battery is eliminated. Still further, problems associated with unbalanced wheel rotation that may occur as a result of increase of the sensor weight caused by a battery are eliminated.

Claims 2-7 depend on claim 1 and are therefore believed to be allowable for at least the foregoing reasons.

Withdrawal of the foregoing rejections is requested.

Claims 8, 9 and 12-15

Amended claim 8 recites: "...a plurality of wireless sensor units corresponding to respective different types of parameters to be detected and arranged in the proximity of a bearing assembly ...only one sensor signal receiver to receive the wireless sensor signal of the natural frequency that is transmitted wirelessly from each of the wireless sensor units, wherein only one sensor signal receiving unit is provided for commonly receiving the sensor signals from the plural sensors and for commonly transmitting the electromagnetic wave to the plural electric power receivers.

The Office Action relies on Yasushi to show the sensor signal receiver of claim 8. Specifically, the Office Action relies on the monitor main part 20 and monitor main part 20a discussed in paragraphs [0016] and [0017] of Yasushi to show the only one sensor signal receiver recited in claim 8.

However, in contrast to claim 8, in Yasushi, a tire pressure monitoring system is provided with one antenna 20c for generating a high frequency signal to provide four tire pressure detectors 10 with an electric power, but is silent about the one electric power transmitter recited in claim 8, which provides a plurality of sensor units, corresponding to respective different types of parameters to be detected and arranged in the proximity of a bearing assembly, with an electric power. Accordingly, an advantage of claim 8 in which a plurality of the sensor units for different parameters can be arranged, with no wiring, in a small space such as around a bearing assembly which is a feature of the present invention as recited in claim 8 which cannot be obtained from Yasushi.

Further, in Yasushi, the antenna 20c is formed in the body side so that the primary detecting element 10 may be implemented in every wheel 2, and these antennas 20c are connected to the monitor part main part 20a. See Yasushi, paragraph [0017]. Referring to Figure 1 of Yasushi, these antennas 20c are connected by wiring to the monitor part main part 20a. Claim 8 recites that the only one sensor signal receiver receives the wireless sensor signal of the natural frequency that is transmitted wirelessly from each of the wireless sensor units. Accordingly, it is respectfully submitted that claim 8 is not anticipated by Yasushi.

Claims 9 and 12-15 depend on claim 8 and are therefore believed to be allowable for at least the foregoing reasons.

Withdrawal of the foregoing rejections is requested.

Claims 10 and 11

In the Office Action, the Examiner noted that the indicated allowability of claims 10 and 11 has been withdrawn. Claims 10 and 11 have been amended to return them to dependent form. As currently amended, claims 10 and 11 depend on claim 8 and are therefore believed to be allowable for at least the foregoing reasons.

Withdrawal of the foregoing rejections is requested.

Claims 16-31

Claims 16-18, 28 and 29 recite only one electric power transmitter is provided for commonly transmitting the electric operating power wirelessly to the plural electric power receivers" The Office Action relies on Ghabra to show this feature of claims 16-18, 28 and 29. As discussed above with respect to claim 1, in Ghabra each tire monitor 16 includes a battery 24 for providing power to an associated transmitter 20. By contrast, claims 16-18, 28 and 29 clearly recite that an electric power receiver receives wirelessly an electric operating power required to drive the sensor and the sensor signal transmitter.

Claims 19-27, 30 and 31 depend on one of claims 16-18, 28 and 29, respectively, and are therefore believed to be allowable for at least the foregoing reasons.

Withdrawal of the foregoing rejections is requested.

CONCLUSION

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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